

# Portfolio assignment 6

Due 24th of March 2020

Study group 6: Sigrid Snapfield, Morten Street, Gustav Helmet, Anders Wheelman

## 1. Output for non-significant contrasts when corrected for FWE

Family wise error correction has been used in all of the non-significant contrasts below.

### Positive Story 1 Rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

### Positive Rating in General

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

### Negative story 1 rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

### Story 1 - Story 2

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

Story 1 rating - Story 2 rating

**Statistics: *p*-values adjusted for search volume**

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

Story 2 rating - Story 1 rating

**Statistics: *p*-values adjusted for search volume**

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

Negative story 2 rating

**Statistics: *p*-values adjusted for search volume**

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			

## 2.a Output for significant contrasts when corrected for FWE

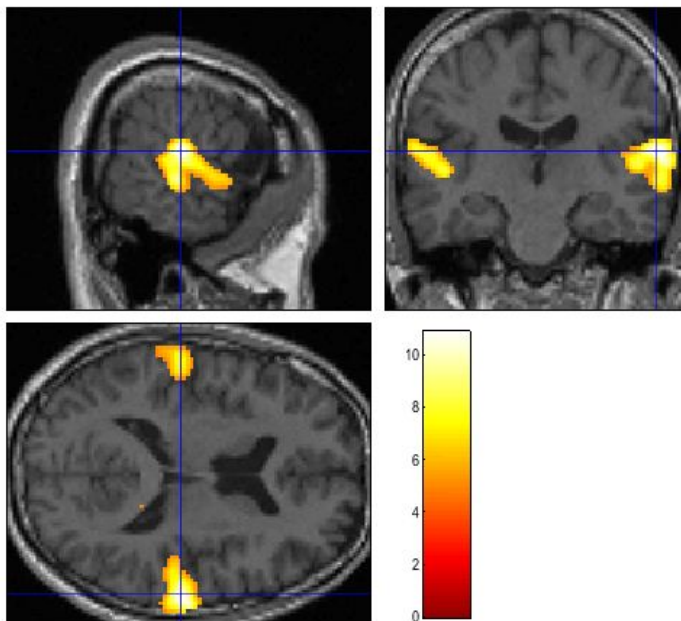
Only Family Wise error corrections have been used below.

All tables show t-contrasts if not otherwise specified. All overlaid images are shown for their global maximum.

### Positive Story 1

**Statistics: *p*-values adjusted for search volume**

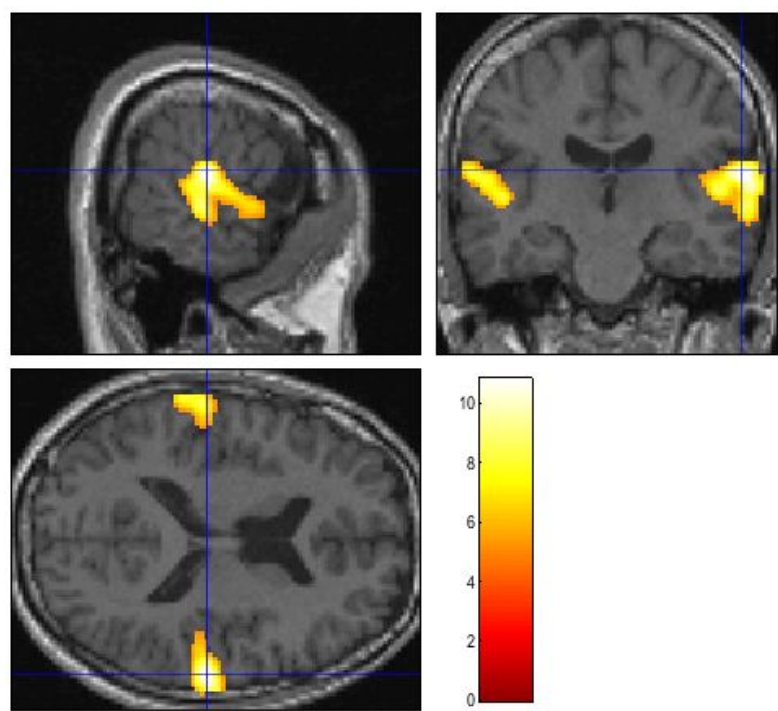
set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
0.000	5	0.000	0.000	1191	0.000	0.000	0.000	10.86	Inf	0.000	62	-22	12
						0.000	0.000	9.32	Inf	0.000	64	-24	-2
						0.000	0.000	8.46	Inf	0.000	54	-18	6
		0.000	0.000	487	0.000	0.000	0.000	9.12	Inf	0.000	-66	-32	16
						0.000	0.000	8.50	Inf	0.000	-52	-18	4
		0.012	0.401	4	0.241	0.026	0.651	5.07	4.98	0.000	4	44	34
		0.029	0.568	1	0.568	0.043	0.863	4.95	4.87	0.000	16	-42	12
		0.021	0.510	2	0.408	0.043	0.863	4.95	4.87	0.000	6	36	46



Positive Story 2

Statistics: *p-values adjusted for search volume*

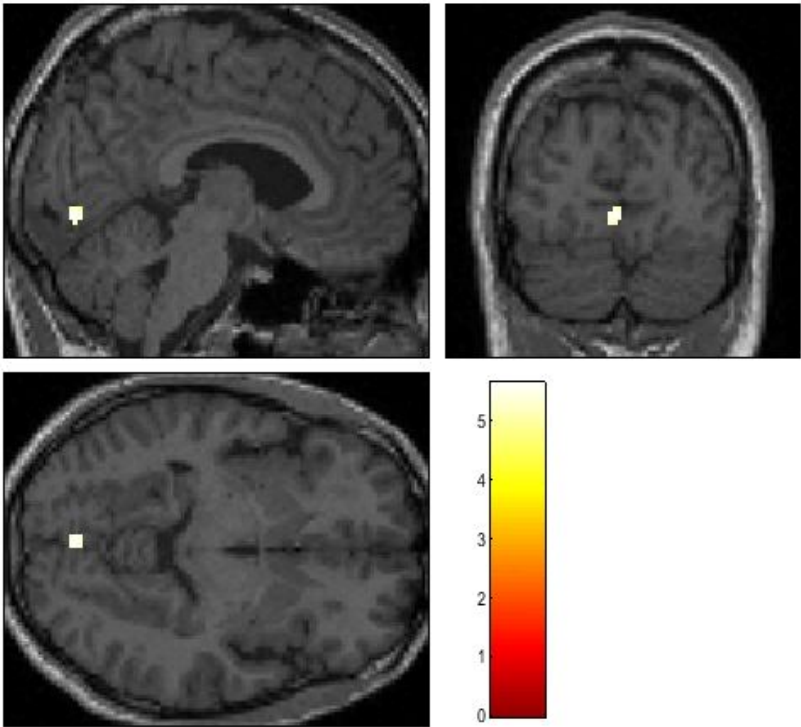
set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
0.000	3	0.000	0.000	1241	0.000	0.000	0.000	10.80	Inf	0.000	62	-22	14
						0.000	0.000	10.30	Inf	0.000	66	-18	8
						0.000	0.000	9.57	Inf	0.000	64	-24	-2
		0.000	0.000	484	0.000	0.000	0.000	9.29	Inf	0.000	-66	-32	18
						0.000	0.000	8.16	7.81	0.000	-52	-18	4
		0.005	0.104	8	0.104	0.015	0.285	5.21	5.11	0.000	4	46	36



Positive Story 2 Rating

Statistics: *p-values adjusted for search volume*

cluster-level				peak-level					mm mm mm		
$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
0.000	0.009	24	0.009	0.002	0.039	5.63	5.51	0.000	-4	-80	-8



## Negative story 1

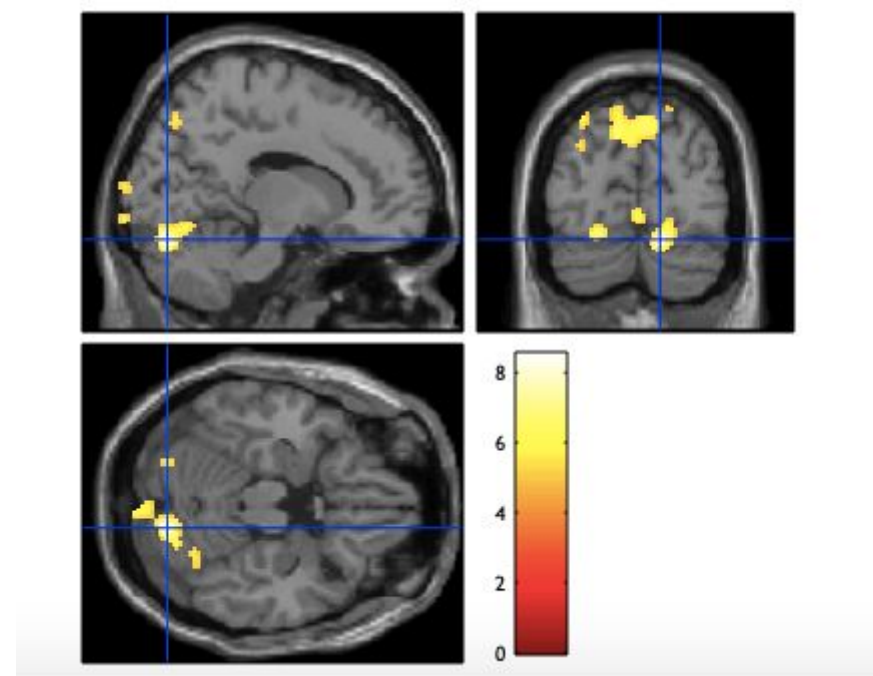
Statistics: *p*-values adjusted for search volume

set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>P</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>P</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
0.000	26	0.000	0.000	1263	0.000	0.000	0.000	8.52	Inf	0.000	14	-78	-20
						0.000	0.000	8.22	Inf	0.000	-2	-84	-8
						0.000	0.000	6.84	6.63	0.000	34	-62	-16
		0.000	0.000	157	0.000	0.000	0.000	7.63	7.35	0.000	36	-60	60
		0.000	0.000	1227	0.000	0.000	0.000	7.11	6.88	0.000	-6	-72	60
						0.000	0.000	6.98	6.76	0.000	2	-74	48
						0.000	0.000	6.79	6.59	0.000	-10	-76	42
		0.000	0.000	93	0.000	0.000	0.001	6.72	6.53	0.000	-12	-104	-2
		0.000	0.003	45	0.001	0.000	0.006	6.20	6.04	0.000	-44	-60	0
		0.000	0.004	40	0.001	0.000	0.007	6.16	6.01	0.000	10	-102	-8
		0.000	0.000	93	0.000	0.000	0.016	5.96	5.82	0.000	30	0	62
		0.000	0.000	160	0.000	0.001	0.028	5.84	5.70	0.000	-30	-76	50
						0.001	0.043	5.73	5.60	0.000	-32	-58	50
		0.000	0.002	48	0.001	0.001	0.041	5.74	5.62	0.000	18	-100	8
		0.002	0.071	13	0.044	0.001	0.043	5.71	5.59	0.000	54	-40	-16
		0.001	0.026	22	0.012	0.001	0.043	5.71	5.59	0.000	-32	-80	34
		0.000	0.009	32	0.003	0.002	0.055	5.66	5.53	0.000	8	-60	58
		0.010	0.262	5	0.192	0.002	0.068	5.60	5.49	0.000	-54	46	-28
		0.001	0.029	20	0.016	0.003	0.075	5.58	5.46	0.000	8	0	80
		0.001	0.024	23	0.010	0.003	0.081	5.55	5.44	0.000	36	-84	26
		0.001	0.041	17	0.024	0.003	0.089	5.53	5.41	0.000	28	-8	72
		0.001	0.027	21	0.014	0.005	0.136	5.43	5.32	0.000	30	50	40
		0.003	0.079	12	0.052	0.006	0.145	5.41	5.31	0.000	-22	-94	14
		0.006	0.183	7	0.126	0.010	0.237	5.29	5.19	0.000	-40	-62	-18
		0.012	0.313	4	0.241	0.019	0.451	5.14	5.05	0.000	64	-42	26
		0.021	0.461	2	0.408	0.024	0.554	5.09	5.00	0.000	60	-20	26
		0.029	0.568	1	0.568	0.028	0.615	5.06	4.97	0.000	-14	-54	64
		0.016	0.382	3	0.399	0.035	0.749	5.00	4.91	0.000	-16	-60	28

table shows 3 local maxima more than 8.0mm apart

Height threshold:  $T = 4.92$ ,  $p = 0.000$  (0.050)  
 Extent threshold:  $k = 0$  voxels  
 Expected voxels per cluster,  $\langle k \rangle = 3.129$   
 Expected number of clusters,  $\langle c \rangle = 0.05$   
 FWEp: 4.915, FDRp: 5.714, FWEc: 1, FDRc: 17

Degrees of freedom = [1.0, 367.0]  
 FWHM = 9.6 9.6 9.4 mm mm mm; 4.8 4.8 4.7 (voxels)  
 Volume: 1846488 = 230811 voxels = 1981.8 resels  
 Voxel size: 2.0 2.0 2.0 mm mm mm; (resel = 108.19 voxels)  
 Page 1





## Negative story 2

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{FWE-corr}$	$q_{FDR-corr}$	$k_E$	$p_{uncorr}$	$p_{FWE-corr}$	$q_{FDR-corr}$	$T$	$(Z_E)$	$p_{uncorr}$			
0.000	22	0.000	0.000	1804	0.000	0.000	0.000	8.04	7.70	0.000	36	-60	60
						0.000	0.000	7.64	7.36	0.000	8	-72	48
						0.000	0.000	7.49	7.22	0.000	-6	-72	60
		0.000	0.000	790	0.000	0.000	0.000	7.68	7.39	0.000	12	-78	-20
						0.000	0.000	7.38	7.12	0.000	-2	-84	-8
						0.000	0.000	6.74	6.54	0.000	32	-62	-16
		0.000	0.000	102	0.000	0.000	0.000	6.89	6.67	0.000	-14	-104	-2
		0.000	0.000	156	0.000	0.000	0.001	6.59	6.41	0.000	30	0	62
		0.000	0.000	416	0.000	0.000	0.001	6.54	6.36	0.000	-32	-58	50
						0.000	0.004	6.32	6.15	0.000	-32	-72	54
						0.000	0.006	6.21	6.05	0.000	-30	-80	34
		0.000	0.000	109	0.000	0.000	0.007	6.15	6.00	0.000	-22	-78	-16
		0.000	0.016	25	0.008	0.000	0.016	5.97	5.83	0.000	52	-40	-16
		0.006	0.164	7	0.126	0.001	0.021	5.90	5.77	0.000	-54	46	-28
		0.000	0.006	36	0.002	0.001	0.023	5.88	5.74	0.000	36	-84	26
		0.000	0.001	51	0.000	0.001	0.027	5.83	5.70	0.000	8	-60	58
		0.000	0.014	27	0.006	0.001	0.027	5.82	5.68	0.000	-44	-60	2
		0.001	0.030	19	0.018	0.003	0.073	5.58	5.46	0.000	10	-102	-8
		0.001	0.029	20	0.016	0.004	0.107	5.49	5.38	0.000	18	-98	8
		0.000	0.014	27	0.006	0.005	0.121	5.46	5.35	0.000	34	52	34
						0.015	0.359	5.20	5.10	0.000	30	48	40

table shows 3 local maxima more than 8.0mm apart

Height threshold:  $T = 4.92$ ,  $p = 0.000$  (0.050)

Extent threshold:  $k = 0$  voxels

Expected voxels per cluster,  $\langle k \rangle = 3.129$

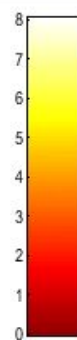
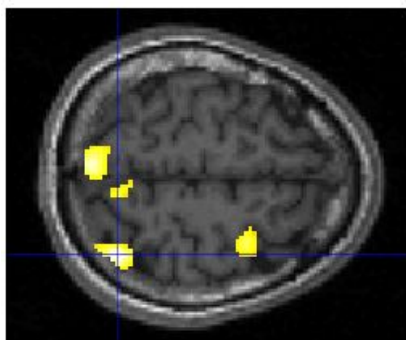
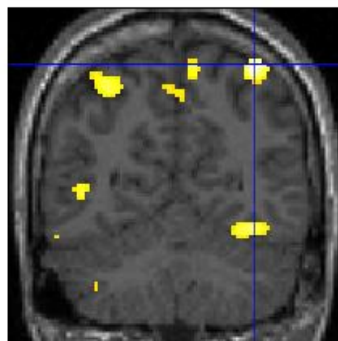
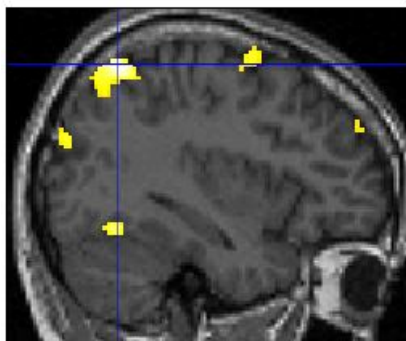
Expected number of clusters,  $\langle c \rangle = 0.05$

Degrees of freedom = [1.0, 367.0]

FWHM = 9.6 9.6 9.4 mm mm mm; 4.8 4.8 4.7 {voxels}

Volume: 1846480 = 230810 voxels = 1981.8 resels

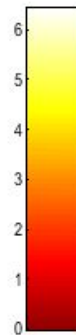
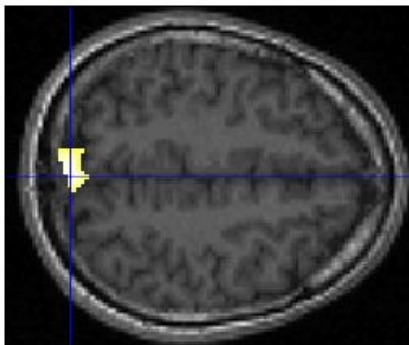
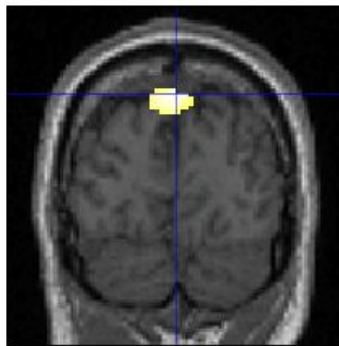
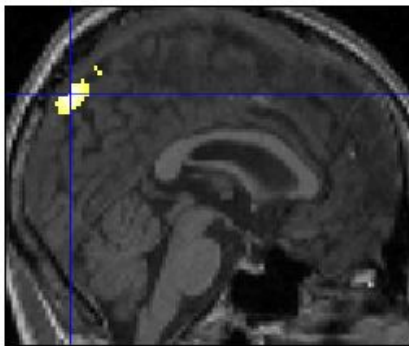
Voxel size: 2.0 2.0 2.0 mm mm mm; (resel = 108.18 voxels)



## Negative rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
0.000	10	0.000	0.000	278	0.000	0.000	0.009	6.41	6.24	0.000	0	-82	46
						0.032	0.706	5.02	4.93	0.000	8	-86	38
		0.010	0.319	5	0.192	0.002	0.141	5.62	5.50	0.000	-54	46	-28
		0.000	0.015	27	0.006	0.002	0.141	5.60	5.48	0.000	4	-68	-2
		0.000	0.004	46	0.001	0.002	0.141	5.60	5.48	0.000	-4	-72	60
						0.020	0.682	5.13	5.04	0.000	-4	-64	50
		0.000	0.015	29	0.005	0.004	0.174	5.50	5.39	0.000	-10	-106	2
		0.000	0.016	25	0.008	0.005	0.206	5.43	5.32	0.000	8	-100	10
		0.029	0.568	1	0.568	0.030	0.706	5.04	4.95	0.000	52	-40	-16
		0.012	0.344	4	0.241	0.032	0.706	5.02	4.94	0.000	18	-62	-12
		0.021	0.510	2	0.408	0.033	0.706	5.02	4.93	0.000	-44	-60	0
		0.029	0.568	1	0.568	0.046	0.909	4.94	4.86	0.000	30	-62	-16

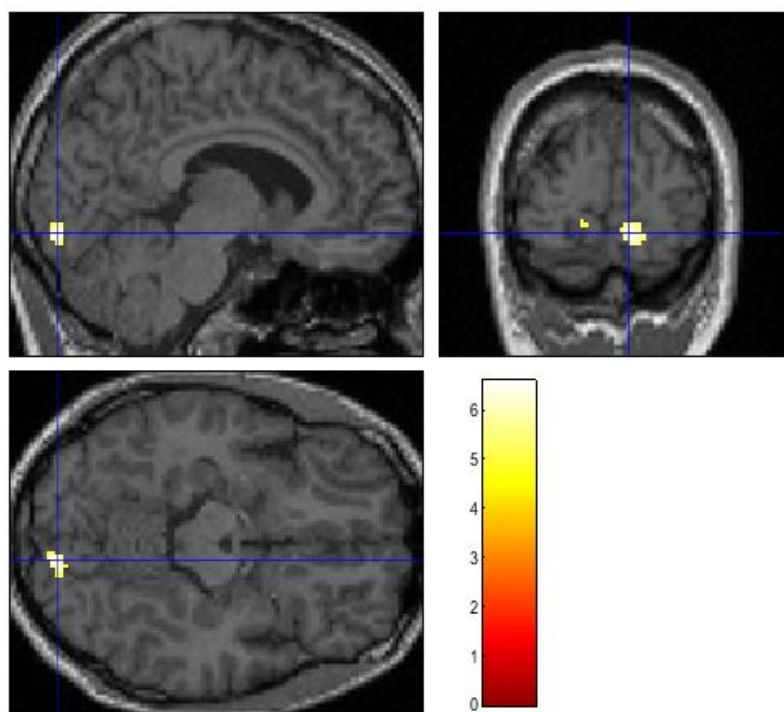




Story 2 - Story 1

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
0.001	2	0.000	0.000	64	0.000	0.000	0.001	6.59	6.40	0.000	8	-90	-14
		0.016	0.309	3	0.309	0.021	0.404	5.13	5.03	0.000	-14	-90	-10

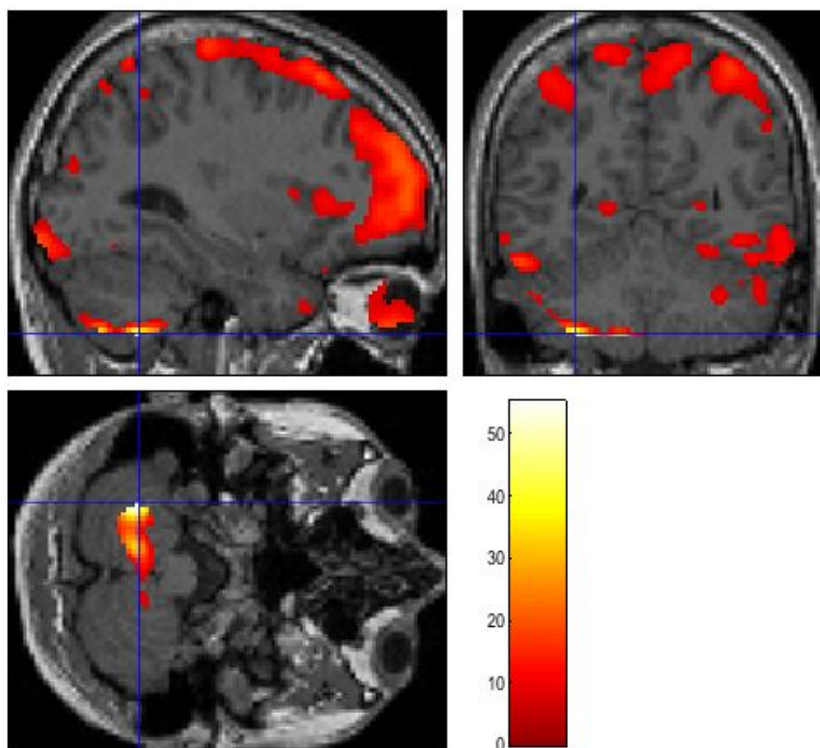


## Motion parameters - F-contrast(!)

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>F</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
0.000	71	0.000	0.000	720	0.000	0.000	0.000	55.17	Inf	0.000	-30	-56	-52
						0.000	0.000	38.77	Inf	0.000	-34	-70	-50
						0.000	0.000	32.95	Inf	0.000	-12	-58	-52
		NaN	0.000	36282	0.000	0.000	0.000	36.54	Inf	0.000	0	54	4
						0.000	0.000	35.91	Inf	0.000	22	22	62
						0.000	0.000	34.09	Inf	0.000	16	14	66
		0.000	0.000	2638	0.000	0.000	0.000	29.72	Inf	0.000	-38	-90	-14
						0.000	0.000	26.06	Inf	0.000	-22	-98	-18
						0.000	0.000	19.02	Inf	0.000	-18	-88	-18
		0.000	0.000	1045	0.000	0.000	0.000	26.07	Inf	0.000	10	-96	-22
						0.000	0.000	22.14	Inf	0.000	30	-94	-18
						0.000	0.000	21.37	Inf	0.000	18	-98	-20
		0.000	0.000	788	0.000	0.000	0.000	18.99	Inf	0.000	-34	58	-48
						0.000	0.000	12.24	6.98	0.000	-38	64	-34
						0.000	0.000	10.94	6.53	0.000	-44	50	-32
		0.000	0.000	479	0.000	0.000	0.000	18.47	Inf	0.000	46	-6	-34
						0.000	0.000	13.86	7.50	0.000	38	8	-46
						0.000	0.001	10.61	6.41	0.000	30	-6	-38
		0.000	0.000	371	0.000	0.000	0.000	18.46	Inf	0.000	38	54	-48
						0.000	0.003	9.78	6.10	0.000	22	52	-36
						0.003	0.080	8.25	5.48	0.000	42	64	-34

table shows 3 local maxima more than 8.0mm apart



## 2.b Output for significant contrasts when using uncorrected threshold at $p < 0.001$

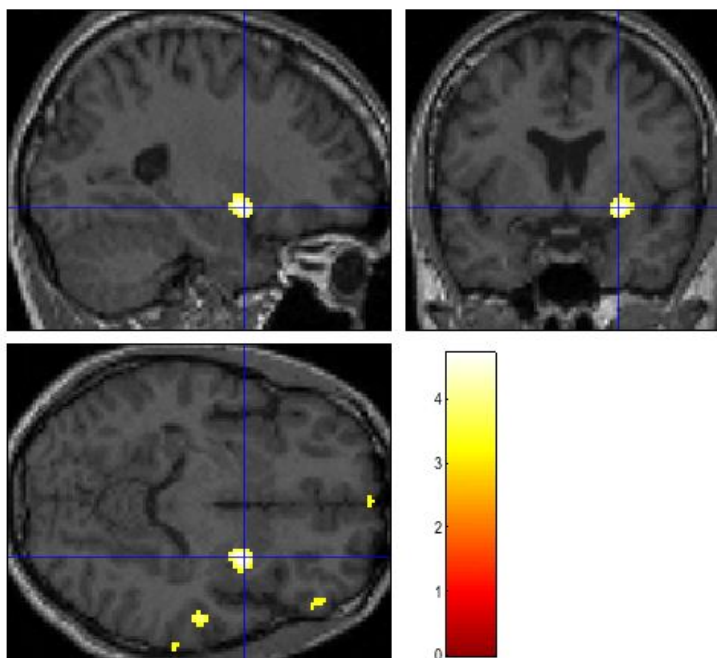
All of the contrasts below are the same ones as in the ones in task 1.

Uncorrected threshold at  $p < 0.001$  has been used below. All overlaid images are shown at their global maximum.

### Positive Story 1 Rating

Statistics: *p-values adjusted for search volume*

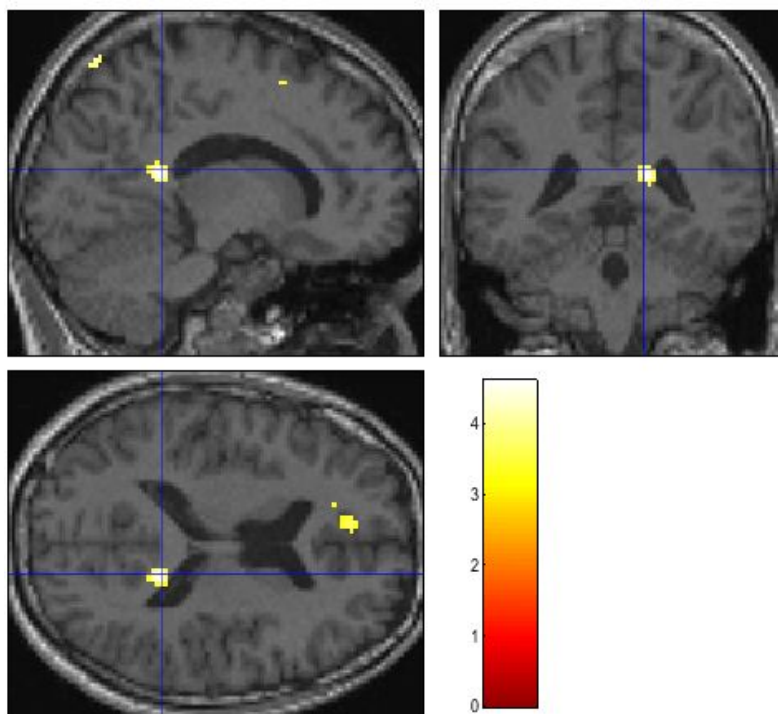
set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
0.248	24	0.140	0.176	103	0.007	0.112	0.162	4.71	4.64	0.000	26	4	-10
		0.369	0.269	70	0.022	0.761	0.823	4.04	3.99	0.000	10	-60	-50
		0.833	0.645	36	0.087	0.836	0.823	3.97	3.92	0.000	56	-18	-12
		0.985	0.645	19	0.203	0.992	0.923	3.65	3.62	0.000	-2	66	-12
		0.944	0.645	26	0.141	0.993	0.923	3.65	3.61	0.000	-18	-28	-4
		0.926	0.645	28	0.127	0.999	0.923	3.54	3.51	0.000	48	44	-12
		1.000	0.800	8	0.409	1.000	0.923	3.40	3.37	0.000	50	-4	-14
		0.993	0.645	16	0.242	1.000	0.923	3.39	3.36	0.000	-12	-56	-46
		0.988	0.645	18	0.215	1.000	0.923	3.37	3.34	0.000	38	20	26
		1.000	0.800	9	0.380	1.000	0.923	3.32	3.30	0.000	-2	44	-14
		0.981	0.645	20	0.193	1.000	0.923	3.31	3.28	0.001	-2	-90	8
						1.000	0.923	3.29	3.27	0.001	2	-92	0
		1.000	0.800	9	0.380	1.000	0.923	3.29	3.26	0.001	10	-88	12
		1.000	0.800	2	0.701	1.000	0.923	3.29	3.26	0.001	34	24	-36
		1.000	0.800	7	0.441	1.000	0.923	3.28	3.26	0.001	-10	-96	22
		1.000	0.800	3	0.628	1.000	0.923	3.27	3.24	0.001	-32	-26	50
		1.000	0.800	6	0.478	1.000	0.923	3.26	3.24	0.001	70	-26	-6
		1.000	0.800	3	0.628	1.000	0.923	3.25	3.23	0.001	-56	-38	-2
		1.000	0.800	3	0.628	1.000	0.923	3.25	3.22	0.001	36	20	-24
		1.000	0.800	2	0.701	1.000	0.923	3.24	3.22	0.001	12	-22	-8
		1.000	0.800	2	0.701	1.000	0.926	3.22	3.20	0.001	-20	-34	-16



## Positive Rating in General

Statistics: *p-values adjusted for search volume*

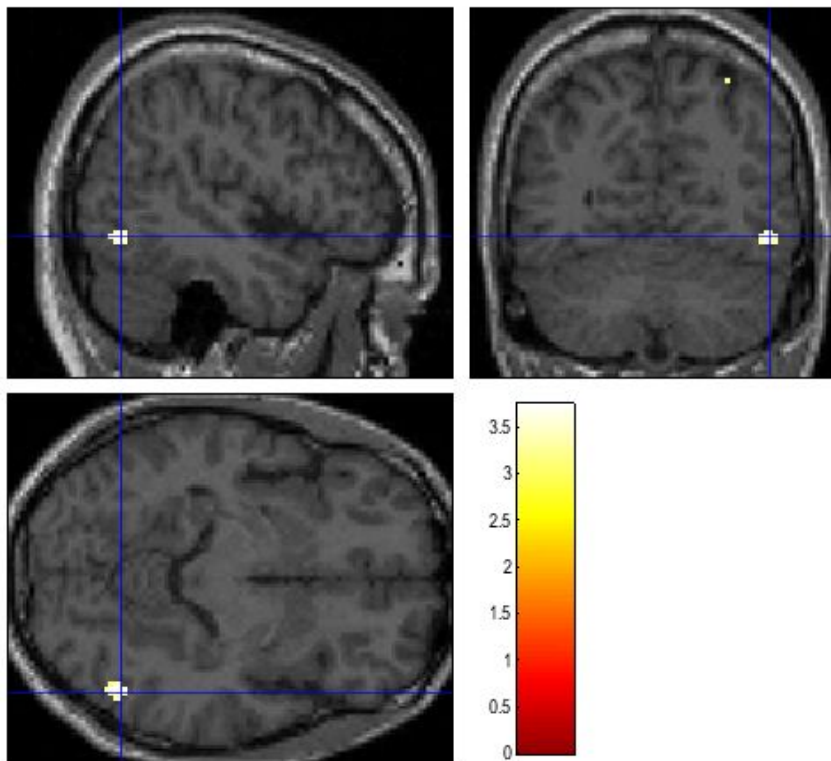
set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
0.868	16	0.540	0.202	56	0.038	0.166	0.157	4.60	4.54	0.000	14	-42	14
		0.064	0.026	130	0.003	0.353	0.157	4.37	4.31	0.000	-14	40	10
						0.980	0.409	3.72	3.69	0.000	-8	42	16
						1.000	0.776	3.39	3.36	0.000	-8	50	10
		0.052	0.026	137	0.003	0.518	0.157	4.23	4.18	0.000	8	54	36
						0.579	0.157	4.18	4.13	0.000	4	44	34
		0.998	0.567	12	0.310	0.614	0.157	4.16	4.11	0.000	14	-72	64
		0.884	0.336	32	0.105	0.638	0.157	4.14	4.09	0.000	-26	50	2
		0.747	0.268	42	0.067	0.966	0.409	3.77	3.73	0.000	6	36	46
		0.991	0.567	17	0.228	0.981	0.409	3.72	3.68	0.000	-8	-22	22
		0.998	0.567	12	0.310	0.999	0.636	3.50	3.47	0.000	56	24	8
		0.999	0.567	10	0.354	0.999	0.636	3.50	3.47	0.000	18	10	54
		0.999	0.567	10	0.354	1.000	0.776	3.36	3.34	0.000	38	62	8
		1.000	0.800	2	0.701	1.000	0.902	3.28	3.25	0.001	-16	-36	22
		1.000	0.800	3	0.628	1.000	0.971	3.21	3.19	0.001	8	52	10
		1.000	0.800	1	0.800	1.000	0.971	3.17	3.15	0.001	-18	-92	-6
		1.000	0.800	2	0.701	1.000	0.971	3.15	3.13	0.001	20	50	22
		1.000	0.800	2	0.701	1.000	0.971	3.15	3.12	0.001	34	12	16
		1.000	0.800	1	0.800	1.000	0.982	3.12	3.10	0.001	-20	-34	20



## Negative story 1 rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
1.000	7	0.906	0.800	30	0.115	0.976	0.762	3.74	3.70	0.000	48	-64	-10
		1.000	0.800	6	0.478	0.996	0.762	3.61	3.58	0.000	-54	-36	58
		1.000	0.800	5	0.520	1.000	0.762	3.42	3.39	0.000	46	62	6
		1.000	0.800	7	0.441	1.000	0.762	3.32	3.29	0.000	28	-62	50
		1.000	0.800	2	0.701	1.000	0.762	3.30	3.27	0.001	30	-68	60
		1.000	0.800	3	0.628	1.000	0.762	3.27	3.24	0.001	-14	-2	48
		1.000	0.800	1	0.800	1.000	0.762	3.23	3.21	0.001	50	-24	2

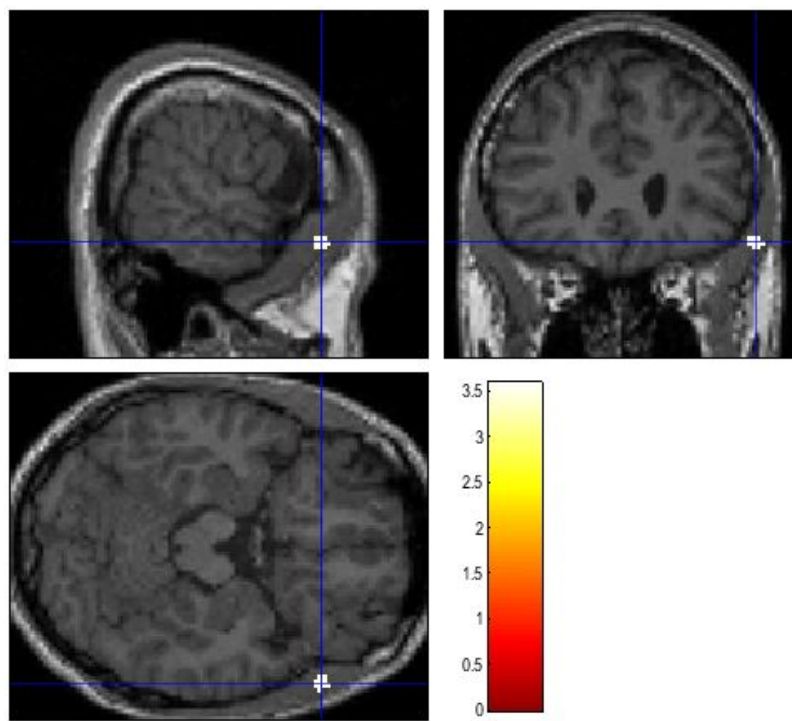




Negative story 2 rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>FWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
1.000	3	0.965	0.492	23	0.164	0.997	0.481	3.58	3.55	0.000	62	28	-18
		0.999	0.531	10	0.354	0.999	0.481	3.55	3.51	0.000	-18	-60	-52
		1.000	0.701	2	0.701	1.000	0.975	3.12	3.10	0.001	-24	2	-34



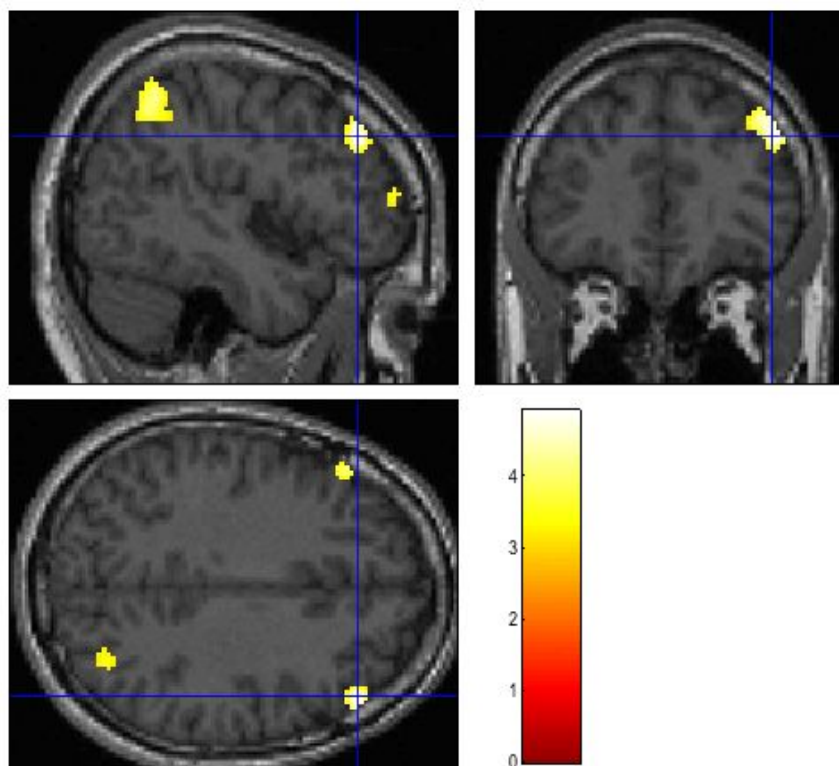


## Story 1 - Story 2

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
$p$	$c$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$k_E$	$p_{\text{uncorr}}$	$p_{\text{FWE-corr}}$	$q_{\text{FDR-corr}}$	$T$	$(Z_E)$	$p_{\text{uncorr}}$			
0.486	21	0.032	0.008	155	0.002	0.052	0.089	4.91	4.82	0.000	46	34	34
		0.000	0.000	359	0.000	0.158	0.104	4.62	4.55	0.000	30	-70	40
						0.851	0.351	3.95	3.91	0.000	38	-66	48
						0.912	0.403	3.88	3.83	0.000	36	-72	54
		0.000	0.000	364	0.000	0.440	0.225	4.30	4.24	0.000	50	-54	46
						0.973	0.495	3.75	3.71	0.000	50	-38	54
						1.000	0.641	3.47	3.44	0.000	42	-48	42
		0.401	0.105	67	0.025	0.641	0.274	4.13	4.09	0.000	-34	-96	2
		0.526	0.128	57	0.036	0.685	0.274	4.10	4.05	0.000	62	-48	-2
		0.777	0.192	40	0.073	0.832	0.351	3.97	3.93	0.000	-48	30	34
		0.003	0.001	253	0.000	0.977	0.495	3.73	3.70	0.000	-38	-58	56
						0.988	0.495	3.68	3.65	0.000	-34	-62	46
						0.989	0.495	3.68	3.64	0.000	-44	-48	52
		0.833	0.204	36	0.087	0.992	0.499	3.65	3.62	0.000	-16	66	-8
		0.672	0.163	47	0.054	0.997	0.556	3.58	3.55	0.000	42	50	6
		0.965	0.344	23	0.164	0.998	0.556	3.58	3.54	0.000	38	18	40
						1.000	0.959	3.19	3.16	0.001	44	20	48
		1.000	0.772	8	0.409	1.000	0.897	3.33	3.30	0.000	-30	60	14
		1.000	0.772	7	0.441	1.000	0.959	3.25	3.22	0.001	-40	52	-14
		1.000	0.800	4	0.569	1.000	0.959	3.24	3.21	0.001	20	56	-10
		1.000	0.800	2	0.701	1.000	0.959	3.20	3.18	0.001	44	-4	24

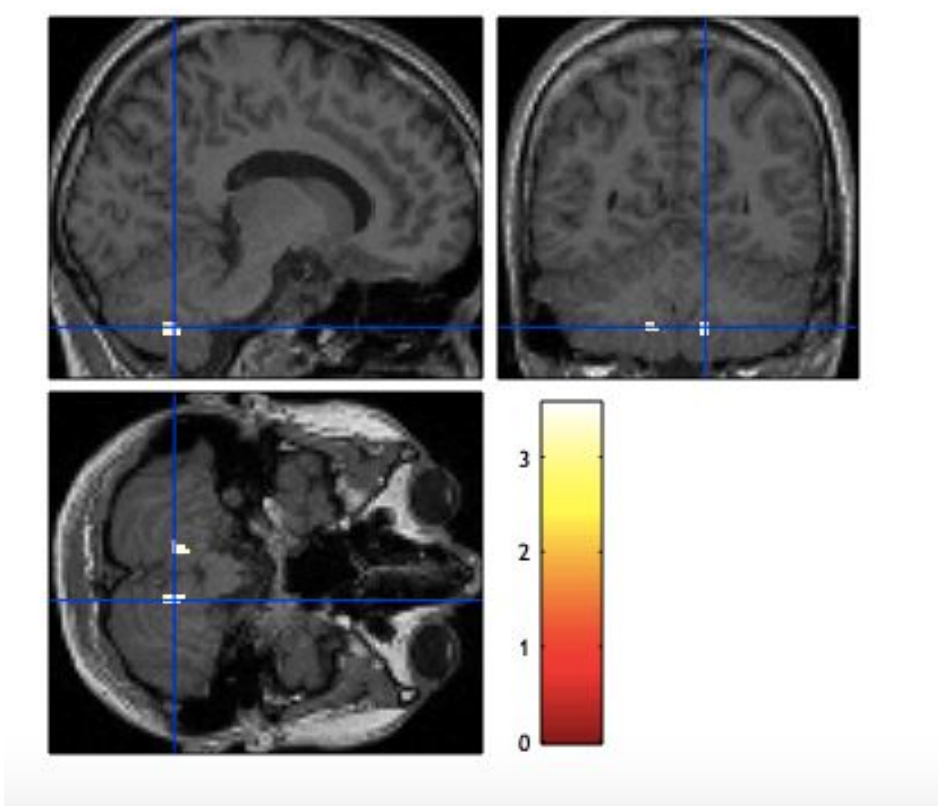
table shows 3 local maxima more than 8.0mm apart



Story 1 rating - Story 2 rating

Statistics: *p-values adjusted for search volume*

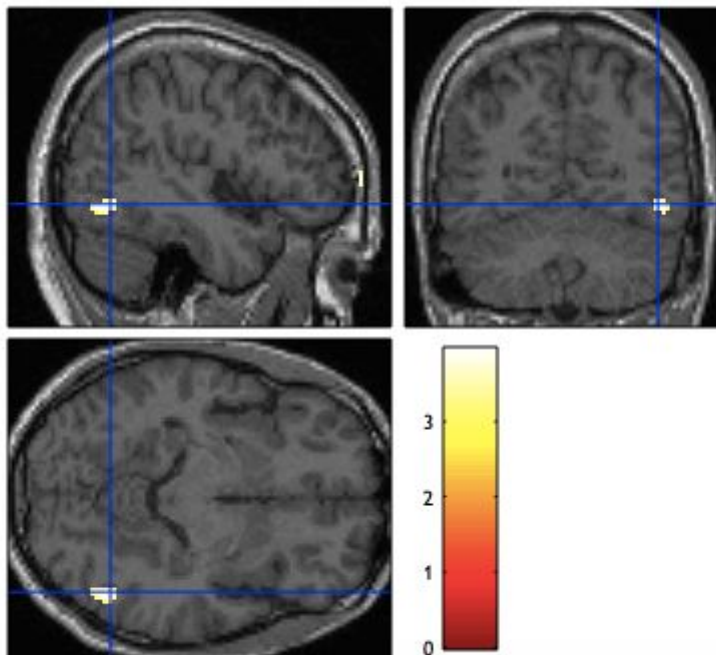
set-level		cluster-level				peak-level					mm mm mm		
<i>p</i>	<i>c</i>	<i>p</i> <sub>PWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>k</i> <sub>E</sub>	<i>p</i> <sub>uncorr</sub>	<i>p</i> <sub>PWE-corr</sub>	<i>q</i> <sub>FDR-corr</sub>	<i>T</i>	( <i>Z</i> <sub>E</sub> )	<i>p</i> <sub>uncorr</sub>			
1.000	7	0.976	0.638	21	0.182	0.998	0.904	3.56	3.53	0.000	12	-58	-48
		0.971	0.638	22	0.173	0.999	0.904	3.53	3.50	0.000	-12	-56	-46
		1.000	0.800	9	0.380	1.000	0.904	3.33	3.30	0.000	54	-20	-12
		1.000	0.800	5	0.520	1.000	0.904	3.29	3.26	0.001	26	2	-6
		1.000	0.800	3	0.628	1.000	0.904	3.23	3.20	0.001	-26	-34	-10
		1.000	0.800	1	0.800	1.000	0.904	3.20	3.17	0.001	28	-30	-20
		1.000	0.800	1	0.800	1.000	0.904	3.15	3.13	0.001	-50	-64	24



## Story 2 rating - Story 1 rating

Statistics: *p-values adjusted for search volume*

set-level		cluster-level				peak-level					mm mm mm		
<i>P</i>	<i>C</i>	<i>P<sub>FWE-corr</sub></i>	<i>q<sub>FDR-corr</sub></i>	<i>k<sub>E</sub></i>	<i>P<sub>uncorr</sub></i>	<i>P<sub>FWE-corr</sub></i>	<i>q<sub>FDR-corr</sub></i>	<i>T</i>	<i>(Z<sub>E</sub>)</i>	<i>P<sub>uncorr</sub></i>			
1.000	6	0.612	0.277	51	0.046	0.847	0.392	3.96	3.91	0.000	46	-62	-10
		1.000	0.520	6	0.478	0.968	0.392	3.77	3.73	0.000	46	62	4
		0.985	0.407	19	0.203	0.982	0.392	3.71	3.68	0.000	-14	-2	46
		0.935	0.401	27	0.134	0.999	0.506	3.53	3.50	0.000	-28	-78	-20
		1.000	0.520	5	0.520	1.000	0.544	3.42	3.39	0.000	36	-14	34
		1.000	0.520	5	0.520	1.000	0.548	3.35	3.32	0.000	16	-102	-4



### 3. How many voxels are included in your analysis?

Our analysis includes 10.818 voxels.

$10.818 \times 0.001 = 11$  voxels would on average appear to be activated by chance at an uncorrected threshold of  $p < 0.001$ .